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10/030,328	11/09/2001	Hans-Jorg Bauder	1540.004	5801

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EXAMINER

GOETZ, JOHN S

ART UNIT	PAPER NUMBER
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3725

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,328

Applicant(s)

BAUDER, HANS-JORG

Examiner

John S. Goetz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 and 37-74 is/are rejected.
- 7) ☒ Claim(s) 36 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's traverse of the restriction requirement has been received and entered.

Because applicant's arguments were persuasive, the restriction requirement is withdrawn and an action on the merits appears below.

2. German priority document 199 38 966.7 08/17/1999 was not included in the application. Additionally, German document 199 22 379.3 5/14/1999 was included but not listed as a priority document.

Claim Objections

3. Claim 36 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim 36 has not been further treated on the merits.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 10 and 53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, applicant has not enabled the "equalisation" of a metal strip.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 1, 23, 24 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 1 recites the limitations "the metal strip is recalled" and then confusingly recites the limitation "the recalled section." These limitations are needlessly confusing and render the claim vague and indefinite because it is not clear whether the claim requires the entire strip to be recalled or only a portion of the strip.

9. Claims 23, 24 and 26 all refer to the "length" of various steps. This language renders the claims vague and indefinite because it is not clear whether "length" refers to the amount of time the step takes, the amount circumferential segment distance applied in the step, the amount of strip distance deformed by the step, or some other distance measurement.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office ^{file} action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-4, 33, 34, 39-41 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Parr (224,720). Parr discloses a method for producing strip-like material from metal comprising, *inter alia*, the steps of: (1) discontinuously rolling the strip in two steps (page 2, lines 7-33); (2) using a "recall" type operation (Id.); (3) wherein the recalled section of the strip is shorter than the circumference of the cylindrically shaped roll (see Figs. 1-3) and wherein the strip is not greater than half the circumference of said rolls (Id.).

12. Regarding claims 33, 34, 39-41, Parr discloses: (1) that the rolls are driven “in synchronism” (see F, F’ and page 1, lines 53-55); (2) that they are rotated “differently” (i.e. with inherently greater force) when rolling the material; (3) use of grippers (Fig. 2).

13. Claims 5-10, 12-14, 20 and 25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nicols (238,953). Nicols discloses a method for producing strip-like material from metal comprising, *inter alia*, the steps of: (1) discontinuously rolling the strip in two steps; (2) using a “recall” type operation; (3) wherein the recalled section of the strip is shorter than the circumference of the cylindrically shaped roll (see Figs. 1-4 and page 1).

14. Claims 5-10 add method steps that are either disclosed or inherent in the Nicols reference. As for example, Nicols discloses that the last rolling step (a pass through groove h) is carried out by segments that have not acted on the strip (inherent in the fact that groove h is “the finishing groove” (line 61)). Additionally, at the point in Nicols forming operation just after rolling in groove g, and just before rolling in groove h, claims 6 and 7 are satisfied. In other words, at that point segments associated with groove g have carried out the most rolling steps and the segments associated with groove h have carried out the least, namely zero (lines 55-61). Additionally, the rolls must be reworked after a number of passes, Nicols discloses steps that include “as sufficient” number of passes (line 58) and equalization of the strip inherently occurs as a result of the rolling.

15. Regarding claims 12-14, 20 and 25, Nicols discloses: (1) that the profile is rolled over the length of the strip with a taper (Fig. 6 and line 62); (2) a periodically recurring profile (top and bottom of strip (see Fig. 6); (3) that the rollers roll “in synchronism” (Fig. 2); (4) that the first step merely reduces the thickness (Fig. 6), and; (5) a roll gap between die segments (Fig. 3).

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16. Claims 15-19, 21-24, 26 and 35 as best understood, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Richardson (136,620). Richardson discloses a method for producing strip-like material from metal comprising, *inter alia*, the steps of: (1) discontinuously rolling the strip in two steps; (2) using a “recall” type operation; (3) wherein the recalled section of the strip is shorter than the circumference of the cylindrically shaped roll (see Figs. 1-4 and pages 1 and 2).

17. Regarding claims 15-19, Richardson discloses: (1) an adjustable roll gap (page 1, 6th paragraph); (2) more than two steps; (3) profiles on both upper and lower rolls (Fig. 1).

18. The limitations of claims 21-24, 26 and 35 are either disclosed or inherent in Richardson. First, rolling inherently “equalises” the strip. Next, Richardson discloses that each step both reduces and profiles the strip. Finally, Richardson discloses a relieved portion (d – see Fig. 3).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 11 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicols. It would have been an obvious matter of design choice to provide for making proofs that could be punched, since the applicant has not disclosed that making such articles solves any stated problem or is for any particular purpose.

21. Claims 27-32, 37, 38, 44-55, 58-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginzburg (4,793,169) in view of Nicols.

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22. Claim 27-32, 44 and 64 depend on claims 12 and 1. Claim 65 depends on claim 1. These claims add that the rollers are displaced during the rolling process using hydraulic cylinders and servo drive controlled by a controller. Ginzburg discloses an apparatus for and method of backpass rolling including all of the elements of claims 1, 12, 27-32, 44, 64 and 65 (see columns 3-5) except for the step of limiting the length of the recalled section to a length that is shorter than the circumference of the rollers. Nicols teaches, in the art of strip-like material deformation by oscillation rolling, this limitation by virtue of several sequentially spaced circumferential dies (see Fig. 4). Furthermore, Nicols discloses that these dies are detachable via screws (reference character xx in Fig. 4 and page 1, lines 40-42) and that the forming grooves of these dies are "turned to the required form and size" (page 1, lines 44-45). Nicols thus suggests that this configuration advantageously allows for easily changing the rolled profile by replacing the dies. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide Ginzburg's backpass rolling method and apparatus with the Nicol's rolls in order to allow for easily adjusting the rolled profile by changing the rolling dies.

23. Regarding claims 38, 46-55, 58-63, 66 and 68-74, each limitation is disclosed or inherent in either the Ginzburg or the Nicols reference. These claims are thus obvious for the reasons stated above.

24. Claims 37, 45 and 67 add a "first colier." However, since Ginzburg discloses a first recalling device (rolls 16 and 18) and absent any showing of criticality in solving a stated problem, these claims are rendered obvious matters of design choice.

25. Claims 42, 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginzburg and Nicols as applied above, further in view of official notice.

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26. Claim 42 adds maintaining tension in the strip during rolling. Claims 56 and 57 add pre-stressed rolls. Official notice is taken of the fact that pre-stressing rolls is well known in the art for the purpose of reducing bearing play and thereby improving strip quality. Similarly, official notice is taken of the fact that maintaining strip tension is well know in the art for the purpose of reducing slip between the strip and rolls, thereby improving strip quality. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the rolling method and apparatus taught by Ginzburg and Nicols with pre-stressed rolls and constant strip tension during rolling in order to improve the quality of the rolled strip.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Goetz whose telephone number is 703-308-1411. The examiner can normally be reached on Mon, Tues, Thurs, Fri 7:00am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allen Ostrager can be reached on 703-308-3136. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3579 for regular communications and 703-305-3579 for After Final communications.

29. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-3136.


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JSG

June 1, 2003

A handwritten signature in black ink, appearing to read 'A. Ostrager', with a stylized, elongated horizontal stroke at the end.

ALLEN OSTRAGER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700